

- ▶ AC/DC voltage monitoring in 1-phase mains
- ▶ Undervoltage monitoring
- ▶ 1 change over contact
- ▶ Width 17.5 mm
- ▶ Installation design



Technical data

1. Functions

AC/DC undervoltage monitoring in 1-phase mains with adjustable threshold and fixed hysteresis.

UNDER Undervoltage monitoring

2. Time ranges

Tripping delay (Delay): Adjustment range -

3. Indicators

Green LED ON/OFF: indication of supply voltage
Yellow LED ON/OFF: indication of relay output

4. Mechanical design

Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN rail TS 35 according to EN 50022
Mounting position: any
Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
Tightening torque: max. 1Nm
Terminal capacity:
1 x 0.5 to 2.5mm² with/without multicore cable end
1 x 4mm² without multicore cable end
2 x 0.5 to 1.5mm² with/without multicore cable end
2 x 2.5mm² flexible without multicore cable end

5. Input circuit

Supply voltage: (= measuring voltage)
Terminals:
230V AC E-F3
24V AC E-F2 (distance > 5mm)
24V DC E-F1(+)
Rated voltage Un: see table ordering information or printing on the unit
Tolerance: -25% to +20% of Un
Rated consumption:
230V AC 10VA (0.6W)
24V AC 1.3VA (0.8W)
24V DC 0.6W
Rated frequency: AC 48 to 63Hz
Duration of operation: 100%
Reset time: 500ms
Wave form: DC, AC Sinus
Hold-up time: -
Drop-out voltage: >60% of supply voltage
Overvoltage category: III (according to IEC 60664-1)
Rated surge voltage: 4kV

6. Output circuit

1 potential free change over contact
Rated voltage: 250V AC
Switching capacity: 1250VA (5A / 250V)
Fusing: 5A fast acting
Mechanical life: 20 x 10⁶ operations
Electrical life: 2 x 10⁵ operations at 1000VA resistive load

Switching frequency: max. 60/min at 100VA resistive load
max. 6/min at 1000VA resistive load (according to IEC 947-5-1)
Overvoltage category: III. (according to IEC 60664-1)
Rated surge voltage: 4kV

7. Measuring circuit

Measuring variable: DC or AC Sinus, 48 to 63Hz (= supply voltage)
Measuring input:
Terminals:
230V AC E-F3
24V AC E-F2 Distance between the devices must be greater than 5mm!
24V DC E-F1(+)
Overload capacity: 120% of Un
Input resistance: -
Switching threshold Us: see table ordering information or printing on the unit
Hysteresis H: see table ordering information or printing on the unit
Overvoltage category: III (according to IEC 60664-1)
Rated surge voltage: 4kV

8. Accuracy

Base accuracy: ±5% of rated value
Adjustment accuracy: ±5% of rated value
Repetition accuracy: ≤2% of rated value
Voltage influence: -
Temperature influence: 0,05% / °C

9. Ambient conditions

Ambient temperature: -25 to +55°C (according to IEC 68-1)
Storage temperature: -25 to +70°C
Transport temperature: -25 to +70°C
Relative humidity: 15% to 85% (according to IEC 721-3-3 class 3K3)
2, if built in 3 (according to IEC 664-1)
Pollution degree: 10 to 55 Hz 0.35mm (according to IEC 68-2-6)
Vibration resistance: 15g 11ms (according to IEC 68-2-27)
Shock resistance:

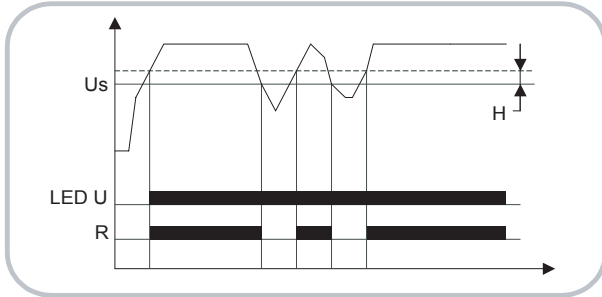
10. Weight

Single packing: 74g
Package of 10pcs: 676g per Package

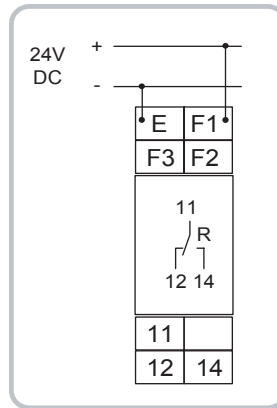
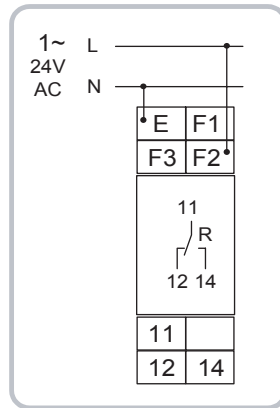
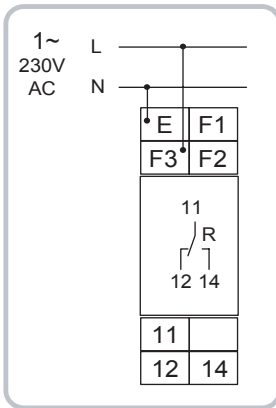
Functions

Undervoltage monitoring (UNDER)

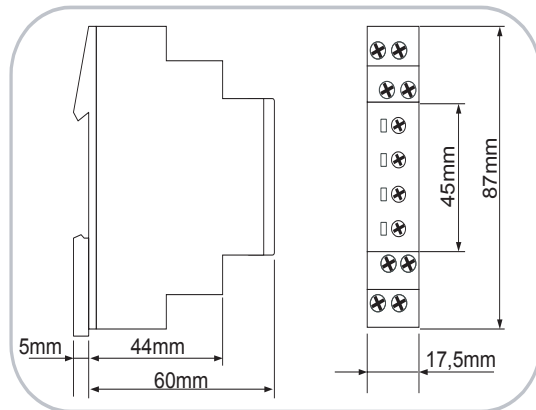
When the supply voltage U is applied, the output relay R switches into on-position, if the measured voltage is beyond the adjusted value. When the measured voltage falls below the adjusted value, the output relay R switches into off-position. The output relay R switches into on-position again, if the voltage exceeds the adjusted value plus the hysteresis.



Connections



Dimensions



Ordering informations

Type	Rated voltage U_n	Functions	Switching threshold U_s	Delay	Hysteresis	Part Nr. (PQ 1)
E1UU230V01	24VAC/DC 230VAC	U	Min: 75% to 115% of U_n	-	fixed 5%	1340102